

Online Research @ Cardiff

This is an Open Access document downloaded from ORCA, Cardiff University's institutional repository: <https://orca.cardiff.ac.uk/id/eprint/101118/>

This is the author's version of a work that was submitted to / accepted for publication.

Citation for final published version:

Arghyrou, Michael G. ORCID: <https://orcid.org/0000-0001-6222-5086> 2017. Structural reforms in the euro area: a Greek view. European View 16 (1) , pp. 45-56. 10.1007/s12290-017-0433-y file

Publishers page: <http://dx.doi.org/10.1007/s12290-017-0433-y>
<<http://dx.doi.org/10.1007/s12290-017-0433-y>>

Please note:

Changes made as a result of publishing processes such as copy-editing, formatting and page numbers may not be reflected in this version. For the definitive version of this publication, please refer to the published source. You are advised to consult the publisher's version if you wish to cite this paper.

This version is being made available in accordance with publisher policies.

See

<http://orca.cf.ac.uk/policies.html> for usage policies. Copyright and moral rights for publications made available in ORCA are retained by the copyright holders.



Structural reforms in the euro area: A Greek view

Michael G. Arghyrou¹

Abstract Events in recent years have put the European economic integration project and the euro under pressure. The main cause of the euro crisis is loss of competitiveness, particularly on the periphery of the Economic and Monetary Union. To reverse this, Union members must promote structural reforms that increase long-term employment, productivity and external competitiveness. The successful implementation of reforms, however, requires sufficient public support, which in turn presupposes measures that support demand during the implementation of reforms. To that end, important steps include taking an expenditure-based approach to fiscal adjustment and the introduction of the European Deposit Insurance Scheme. And for Greece in particular, the set of necessary steps includes taking ownership of reforms, the downward revision of fiscal targets, and medium- and long-term measures of debt relief conditional upon meeting fiscal/reform targets. Finally, the stability of the euro hinges on the moderation of all fiscal and external imbalances across all member states, regardless of whether these imbalances are apparent or not.

Keywords Economic and Monetary Union – Greece – Structural reforms – Demand – Expectations – European Deposit Insurance Scheme – Primary surplus – Debt relief

Introduction

The European economic integration project is a cornerstone of lasting peace for the European continent. This is sufficient reason to advocate strongly for its continuation. Nevertheless, events in recent years have put it under pressure. The most prominent manifestation of this has been the UK's decision to leave the EU. In other countries, populist and/or extremist anti-EU parties have made electoral advances; and even voters for mainstream pro-EU parties report increasing dissatisfaction with the EU (Oliver 2016).

¹ M. G. Arghyrou
Cardiff Business School, Cardiff University, Aberconway Building, Colum Dr, Cardiff, CF10 3EU, UK
e-mail: ArghyrouM@cardiff.ac.uk

While each country has idiosyncratic features contributing to the increasing prevalence of Euroscepticism, there are two common economic factors. The first is the effects of globalisation on world income distribution (see Milanovic 2016). During 1988–2008 average global income increased and the variance in income distribution declined. However, individuals who in 1988 were placed between the distribution's 75th and 85th percentile experienced income stagnation or reduction. Seventy per cent of the people in this category are residents of Western countries occupying places in the lower half of their nation's income distribution. The stagnation/decline of their living standards, combined with large income gains for the top percentile, which is associated with political and economic elites, have left large sections of European societies with a sense of insecurity and injustice. This provides ground for populist/extremist parties to claim that reversing globalisation will be enough to restore the previous norm. In this over-simplistic analysis the EU is identified with globalisation and thus receives reduced endorsement.

The second factor is the European debt crisis, which has divided the euro area into two groups. The first includes debtor countries that have been cut off from international bond markets and, as a result, have received official financial assistance conditional upon implementing programmes of economic adjustment. Greece is the most prominent example of this group. The second group includes creditor countries, which have underwritten the assistance programmes provided to the first. In countries such as Greece dissatisfaction with the EU is driven by the adverse effects on welfare of adjustment programmes and a sense of reduced national sovereignty due to the direct involvement of the EU and other international bodies (e.g. the International Monetary Fund) in national economic policy. In creditor countries, dissatisfaction is the result of a sense of the involuntary use of national and private savings to rescue Economic and Monetary Union (EMU) partners that are perceived as imprudent. Starting from opposite reference points, public opinion in both groups converges on a common ground: Euroscepticism.

The two factors explained above are not unrelated. They share a common economic source, namely competitiveness losses in many EMU economies, particularly those on the periphery. These losses will not be reversed if the EMU embarks upon a protectionist course and/or some EMU countries leave the euro. Economic theory and

historical experience tell us that free trade promotes production efficiency and welfare standards, and living standards in the long run are determined by an economy's production capacity, that is, its supply side, on which monetary policy has no lasting impact. The only credible answer to Europe's economic and political problems is structural reform, and it is on this that the euro's sustainability ultimately depends.

Having said that, international experience also tells us that a successful programme of reforms requires the support of a critical mass of the population. For this to be in place the latter must perceive reforms to be beneficial and realistic, that is, their adjustment welfare cost should not be regarded as socially untenable. This, in turn, presupposes that until reforms yield positive output effects, economic activity is adequately supported by the demand side. With an emphasis on Greece, this article discusses the reforms necessary in the EMU countries and analyses the demand-supporting conditions that would enable their successful conclusion.

Structural reforms

Despite evidence of increased economic convergence among EMU members since 1999, the EMU continues to be divided between a core and a periphery (Campos and Macchiarelli 2016), deviating from the conditions set by the theory of optimum currency areas for the smooth operation of a single currency. The core–periphery divide is manifested in per capita income statistics (see Figure 1) and was highlighted during the crisis, when periphery countries experienced significantly higher output losses. The policy implication of this experience is uncontroversial: for periphery countries to catch up with their core partners and upgrade their economy's capacity to withstand future crises, they need to promote supply-side policies that enhance their economies' flexibility, external competitiveness and production capacity (natural output).

Modern macroeconomics (see Corsetti and Pesenti 2009) suggests that natural output increases with long-term employment and productivity levels, while competitiveness gains involve a reduction of goods and services prices relative to those of trading partners. Long-term employment is a function of both competition in the goods and services markets and the quality of human capital. Productivity depends on human capital and capital investment, for which institutional performance across a range of

areas (e.g. taxation, political stability, the rule of law and protecting property rights) is of crucial importance. Finally, external competitiveness increases with lower marginal production costs and lower mark-ups on marginal costs. The latter, in turn, are determined by the degree of competition in the goods and services markets, non-labour costs and indirect taxation. All of the above should be top policy priorities for EMU countries to engage with in future years. The example of Ireland shows that putting in place a flexible, institutionally credible and friendly-to-business environment creates long-term output gains, an ability to quickly overcome crises and a more equal distribution of income.

Ireland's experience is the most relevant for Greece, the country presenting the biggest potential for supply-side improvements in the EMU area, as suggested by its position in numerous international rankings relating to supply-side performance. On this front, Greece made significant progress in the period 2012–14 (see Arghyrou 2014). In 2015–16, however, this progress ended. The stagnation in which the Greek economy currently finds itself highlights the importance of resuming the process of reform.

Supporting reforms through demand

Structural reforms cause immediate welfare losses to be offset by higher benefits in the future. This is why reforms should be pursued during periods of growth, to moderate their short-term welfare impact. Unfortunately, political considerations often get in the way, resulting in reforms being pursued during recessions when accumulated imbalances make their implementation urgent. The experience of the European periphery is a prime example. But bygones are bygones. European economies must now move on with reforms. In this effort, their prospects for success will improve substantially if demand conditions are as supportive as they can be during the implementation of reforms. To that end, the following factors are important.

Optimal prioritisation

To maximise their effectiveness, reforms should be optimally prioritised. Existing literature (see OECD 2016) suggests that in periods of low demand, priority should be

given to reforms that remove barriers to entry in the goods and services markets and to those that increase labour mobility. In addition to increasing natural output, such reforms have a positive effect on demand, increasing disposable incomes and the endorsement of reforms by the general public. In the context of the EMU, and as the theory of optimum currency areas suggests, flexible goods and labour markets are even more important for closing output gaps due to the absence of national monetary policies. Furthermore, in a low demand situation reforms facilitating infrastructure investment are also important for sustaining incomes. EU financing, available through European Structural Funds, the European Fund for Strategic Investment, the European Investment Bank, and the European Bank for Reconstruction and Development, provides such opportunities. In the particular case of Greece, financing from these sources is gradually gathering momentum. This is a positive development; however, on its own it is not enough to address Greece's long-term supply and short-term demand problems.

Favourable expectations

Demand conditions depend on the regime of expectations under which reforms are implemented. High confidence in the successful conclusion of reforms accelerates positive private responses to reform policies (through investment and consumption), triggering a virtuous circle of mutually enforcing expectations, increased demand and endorsement of reforms. Low confidence causes the opposite dynamics.

Improving expectations depends on two factors. The first of these is the national authorities taking ownership of the reforms. A lack of ownership causes implementation risk, restricting investment and consumption spending, which compromises the endorsement of reforms and reinforces implementation risk. EMU countries whose authorities took ownership of reforms (Ireland, Portugal and Cyprus) have concluded their assistance programmes successfully and returned to positive growth. In Greece, when ownership of the reforms has been absent, between 2009–11 and 2015 to present, economic developments have been negative. By contrast, in 2012–14, when authorities assumed ownership of the reforms, the economy made significant progress (see Arghyrou 2014).

Second, credible crisis-prevention and crisis-management mechanisms are needed at the EMU level. These are necessary to reassure markets that the probability of major national banking and fiscal crises is limited and that, if they happen, they will not spread to the economy's real sector and/or to other countries. To that end, a number of institutional changes have taken place, including the creation of a new macro-prudential framework, risk-sharing fiscal funds (the European Financial Stability Facility and the European Stability Mechanism), the Outright Monetary Transactions programme and the European Banking Union (EBU), which involves centralised bank supervision and resolution. These are steps in the right direction, both in terms of increasing risk-sharing and reducing moral hazard; however, they are not enough to deliver the necessary improvement in expectations (see Arghyrou 2015a). This is because many decisions continue to be subject to political discretion and the new institutional infrastructure remains incomplete. This was fully grasped by the *Five Presidents' Report* (European Commission 2015) which, among others, highlighted the importance of complementing the EBU through the introduction of a European Deposits Insurance Scheme (EDIS) and increased fiscal integration.

Liquidity and EDIS

The importance of liquidity for business-cycle movements has been well established since the 1960s, documented by the writings of Milton Friedman (1963), founder of the monetarist school of economics. Figure 2 offers evidence from Greece, depicting a strong positive correlation between the growth rates of real GDP and the provision of bank credit to the private sector. Although in the long run money is neutral, it is a potent stabilisation tool for closing negative output gaps. This approach underlies the monetary policy followed by the European Central Bank (ECB) since summer 2007, including the Quantitative Easing (QE) programme implemented since January 2015 (see Draghi 2016), which has contributed towards output stabilisation at the Union level (see Demertzis and Wolff 2016).

The ECB's expansionary monetary policy, however, has three drawbacks. First, it is not uniformly transmitted, as liquidity increases at the core of the EMU have been considerably higher than those at the periphery. This is a reflection of the fact that the ECB has one policy instrument (the Union interest rate or money supply) and

numerous policy objectives (national output gaps). As a result, the single monetary policy responds imperfectly to national business cycles, particularly under the financial fragmentation observed during the crisis (ECB 2015). Greece, in particular, has been isolated from the QE programme's liquidity effects, as the capital controls in place since July 2015 imply that its economy is operating under a credit crunch. Second, this expansionary policy may threaten financial stability by disconnecting asset prices from fundamentals (Claeys and Leandro 2016). Recent evidence from European sovereign bonds markets (see Delatte et al. 2017) supports such concerns. Finally, large purchases of sovereign bonds in the context of QE may cause fiscal moral hazard.

These problems may be ameliorated through the introduction of EDIS. In certain countries EDIS is regarded with legitimate scepticism on moral hazard grounds (see Schuknecht 2016), although this may reflect national rather than EU priorities (see Véron 2016). EDIS, however, involves shared benefits that may offset such moral hazard risks. First, by increasing depositors' confidence in national banking systems (which the currently incomplete EBU has failed to do), EDIS will enhance credit-growth capacity at the national level. This will operate as a substitute for the national monetary policy instruments that are missing within the EMU, moderating national business cycles. This, in turn, will reduce the necessity for and/or size of official financial assistance programmes and, by supporting demand, will enhance the promotion of reforms. Both effects will reduce the exposure of European taxpayers to the output risks of countries that have received official financial assistance programmes. Furthermore, by smoothing national business cycles, EDIS will reduce the need for ultra-expansionary monetary policy, which will reduce financial stability risks. Finally, a less expansionary monetary policy will reduce the risk of fiscal moral hazard caused by the large purchases of sovereign bonds under QE.

Fiscal adjustment and debt relief

The EMU crisis has left many countries with excessive public debt levels. This is primarily the result of bank-rescue programmes and, in the case of Greece, fiscal imbalances built up in the run-up to the crisis. Reforms impact on the economy's natural output through the employment and investment responses of the private sector. These responses depend on expectations about future taxation on income and

corporate profits. For reforms to be effective, taxation expectations need to be favourable. Therefore, reforms must be accompanied by a credible programme of fiscal adjustment, reducing expected future taxation. This raises two questions. First, how should fiscal adjustment be pursued? Second, how aggressive should it be?

Fiscal adjustment is widely regarded as causing short-term contractionary output effects. However, existing evidence (see Alesina et al. 2015) suggests that these are more pronounced in size and duration when adjustment is pursued through tax increases rather than expenditure cuts. An intuitive explanation is that tax increases reduce employment and investment incentives and cause other supply-side distortions. These effects weaken natural output, reducing expectations and suppressing current demand. By contrast, expenditure cuts accompanied by tax reductions limit distortions and improve output expectations. Discounting higher future output in present consumption and investment mitigates the demand effects of lower government expenditure. Overall, given the supply-side profile of many EMU countries, fiscal consolidation is more likely to be successful if it is mainly expenditure- rather than tax-based. This is particularly true for Greece, where high taxation levels (increased substantially in 2015–17) have created high distortions and incentivised tax-evasion (see Artavanis et al. 2016).

Clearly, a country such as Greece, where the public debt to GDP ratio is currently in the range of 180%, must target primary fiscal surpluses to improve the dynamics of its government's intertemporal budget constraint. But in addition to the primary surplus, the intertemporal budget constraint depends on the stock of debt and the difference between the rates of growth and real interest on debt. In recent years, Greece has benefited from interest rate reductions and extensions of debt maturity. However, as evidenced by Greek long-term government bond yields, these have not been enough to restore confidence in Greece's public debt sustainability. The implementation of reforms will help do so. However, the latter's output effects will appear gradually over the medium term. In the meantime, servicing the Greek debt involves large payments from 2019 onwards. This underlies the 3.5% primary surplus set for Greece's fiscal policy starting from 2018 for an unspecified period of time. However, there are two risks associated with this target.

First, historical evidence suggests that a 3.5% fiscal surplus was relatively rare during the post-war period of 1950–2011, when in 75% of the cases primary balances had values of less than 2.5% and 1.7% for advanced and non-advanced countries respectively (see Mauro et al. 2013). Europe has seen three episodes of prolonged, substantial fiscal surpluses, in Ireland (1987–93), Italy (1995–2000) and Belgium (1994–2004). However, there are two major differences between those episodes and the situation in Greece today. The first is that they were implemented under significantly more favourable output conditions, involving average output gaps equal to +2.8%, -1.9% and -0.4% for Ireland, Italy and Belgium respectively. This contrasts with an output gap of -6.5% in 2016 for Greece and an average of -6.9% for the period 2011–16 (International Monetary Fund 2016). The second is that in those countries national monetary policies were still in place, providing a channel to mitigate the demand effects of fiscal consolidation. This channel is not available in Greece, whose economy, as we have seen above, is operating under credit-crunch conditions. Although Greece needs to target considerable primary surpluses to limit fiscal imbalances, the 3.5% target is excessive and, given the current state of the Greek business cycle, amounts to a fiscal overkill that is very likely to be self-defeating. A revision of the target towards the third quartile of the historical distribution (in the range of 2%) would still set Greece a relatively ambitious fiscal target. Revising the fiscal target downwards, in turn, would allow demand conditions to better support the reform process, which is much more important for long-term growth and fiscal sustainability.

The second risk comes from the level of debt. According to all available projections, the Greek public debt to GDP ratio will remain very high for the foreseeable future. Even if Greece meets its fiscal and reform targets, Greek public debt sustainability will be vulnerable to external shocks causing output losses which, in turn, will threaten credit events. As a result, the risk premiums associated with investments in Greece will remain high, restricting capital inflows, discouraging investment and maintaining high borrowing costs, all of which will restrain growth. It is therefore necessary to further lighten the burden of servicing the Greek public debt, as per the Eurogroup's decision of November 2012, which was confirmed by the agreement on the Greek

financial assistance programme in July 2015 and the Eurogroup's decision of May 2016.²

To achieve this objective, the Greek authorities must not delay delivering on the commitments undertaken in the context of the third financial assistance programme, and Greece's official lenders, in response, should not delay agreement on measures that reduce the cost of servicing the Greek public debt. These steps, however, may be difficult to conclude due to the presence of a coordination problem. At present, the measures to be taken to reduce the Greek debt burden have not been confirmed; they are only a possibility, to be decided after the conclusion of the third Greek programme in August 2018. As a result, the Greek authorities may be reluctant to take measures involving certain and immediate welfare losses in exchange for uncertain gains following non-guaranteed debt-reduction measures. On the other hand, due to moral-hazard considerations, Greece's partners may be reluctant to commit to debt-reduction measures without evidence of Greece's commitment to fiscal adjustment and reforms.

The solution to this coordination problem may be an agreement postulating gradual, pre-announced, specific and automatic debt reductions, conditional upon Greece meeting targets relating to fiscal policy and reforms (see Arghyrou 2015b). Such an agreement may offer a guide for resolving other outstanding debtor–creditor conflicts within the euro area, as debt relief is not necessarily a zero-sum game. Using a standard open-economy framework (see Corsetti and Pesenti 2009), it can be shown that for debtor countries debt relief implies consumption gains, which increase further as debt relief facilitates reforms and productivity-enhancing investment, thus increasing natural output. Higher output in debtor countries reduces the prices of their goods, improving the terms of trade with creditor countries, whose residents consume imports from debtor countries. As a result, debt relief for the latter involves consumption gains for creditor countries, compensating for the consumption losses caused by granting debt relief. Benign self-interest may render debt relief conditional upon reforms in a mutually beneficial scheme of crisis-resolution.

² See Eurogroup (2012; 2015 and 2016).

Conclusion

This article has discussed the reforms that have to be undertaken in EMU countries to ensure the stability and long-term sustainability of the euro. It has also explained the steps needed to support demand during the implementation of reforms, thus enabling their successful conclusion. It has been argued that structural reforms in the EMU should target increases in long-term employment, productivity and external competitiveness. Demand measures that support reforms include an expenditure-based approach to fiscal adjustment and the introduction of EDIS. And in the case of Greece, they include ownership of reforms, the downward revision of fiscal targets, and medium- and long-term measures of debt relief conditional upon the meeting of fiscal/reforms targets.

Finally, economic adjustment in the euro area requires moderation of all fiscal and external imbalances across all member states. Within a monetary union, both excessive deficits and excessive surpluses can cause negative externalities at the union level. Furthermore, any country's participation in the euro implies that its systemic risk increases by a fraction of its partners' systemic risk, due to the increased interdependence brought about by monetary and banking integration. Imported systemic risk can be reduced, but it can never be fully eliminated. This is why the euro area needs effective risk-reduction *and* risk-sharing mechanisms, both of which are equally important in the long run. The stability of the euro will improve substantially if all national economic policies are designed with these facts in mind. European solidarity goes hand-in-hand with macroeconomic prudence, and leading by example requires national macro-policies involving a mix of national and Union-wide priorities that can be sustained by all of the member nations. Prudence and consideration for Union objectives are the two sides of good European citizenship, without which the euro's long-term stability cannot be guaranteed.

References

Alesina, A., Favero, C., & Giavazzi, F. (2015). The output effect of fiscal consolidation plans. *Journal of International Economics*, 96(S1), S19–S42.

- Arghyrou, M. G. (2014). *Is Greece turning the corner?* CESifo Working Paper no. 4995. Munich.
- Arghyrou, M. G. (2015a). From the euro-crisis to a new European economic architecture. In D. D. Thomakos, P. Monokrousos & K. Nikolopoulos (eds.), *A financial crisis manual: Reflections and the road ahead—Palgrave studies in banking and financial institutions* (pp. 308–28). Basingstoke: Palgrave Macmillan.
- Arghyrou, M. G. (2015b). On Greek crises, growth, market-access and debt-forgiveness. *CESifo DICE Report*, 1, 33–8.
- Artavanis, N., Morse, A., & Tsoutsoura, M. (2016). Measuring income tax evasion using bank credit: Evidence from Greece. *The Quarterly Journal of Economics*, 131(2), 739–98.
- Bank of Greece. (2017). Credit to domestic non-MFI residents by domestic MFIs excluding the Bank of Greece. Data retrieved on 4 April 2017. http://www.bankofgreece.gr/BogDocumentEn/Credit_to_domestic_non_MFI_residents_by_domestic_MFIs_excluding_BoG.xls. Accessed 4 April 2017.
- Campos, N. F., & Macchiarelli, C. (2016). Core and periphery in the European Monetary Union: Bayoumi and Eichengreen 25 years later. *Economics Letters*, 147(1), 127–30.
- Claeys, G., & Leandro, A. (2016). *The European Central Bank's quantitative easing programme: Limits and risks*. Bruegel Policy Contribution 2016/04. Brussels.
- Corsetti, G., & Pesenti, P. (2009). The simple geometry of transmission and stabilisation in closed and open economies. In R. Clarida and F. Giavazzi (eds.), *NBER International Seminar in Economics 2007, Volume 4* (pp. 65–116). Chicago: University of Chicago Press.

- Delatte, A.-L., Fouquau, J., & Portes, R. (2017). Regime-dependent sovereign risk pricing during the euro crisis. *Review of Finance*, forthcoming.
- Demertzis, M., & Wolff, W. (2016). *The effectiveness of the European Central Bank's asset purchase programme*. Bruegel Policy Contribution 2016/10. Brussels.
- Draghi, M. (2016). *Introductory statements in hearing of the Committee on Economic and Monetary Affairs of the European Parliament*. Brussels. 28 November.
- ECB. (2015). *Financial integration in Europe*. Frankfurt. April.
- Eurogroup. (2012). Eurogroup statement on Greece. 27 November. <http://www.consilium.europa.eu/press/press-releases/2012/11/pdf/Eurogroup-statement-on-Greece-27-11/>. Accessed 4 April 2017.
- Eurogroup. (2015). Eurogroup statement on the ESM programme for Greece. 14 August. <http://www.consilium.europa.eu/en/press/press-releases/2015/08/14-eurogroup-statement/>. Accessed 4 April 2017.
- Eurogroup. (2016). Eurogroup statement on Greece. 22 May. <http://www.consilium.europa.eu/en/press/press-releases/2016/05/24-eurogroup-statement-greece/>. Accessed 4 April 2017.
- European Commission. (2015). *The five presidents' report: Completing Europe's Economic and Monetary Union*. Brussels. 22 June.
- Friedman, M., & Schwartz, A. (1963). *A monetary history of the United States, 1867–1960*. Princeton, NJ: Princeton University Press.
- International Monetary Fund. (2016). *World economic outlook database*. Washington, DC. October.

International Monetary Fund. (2017). *International financial statistics*. Washington, DC. April.

Mauro, P., Romeu, R., Binder, A., & Zaman, A. (2013). *A modern history of fiscal prudence and profligacy*. IMF Working Paper 13/5. Washington, DC.

Milanovic, B. (2016). The greatest reshuffle of individual incomes since the Industrial Revolution. *VoxEU.org*, 1 July.

<http://voxeu.org/article/greatest-reshuffle-individual-incomes-industrial-revolution>.

Accessed 25 April 2017

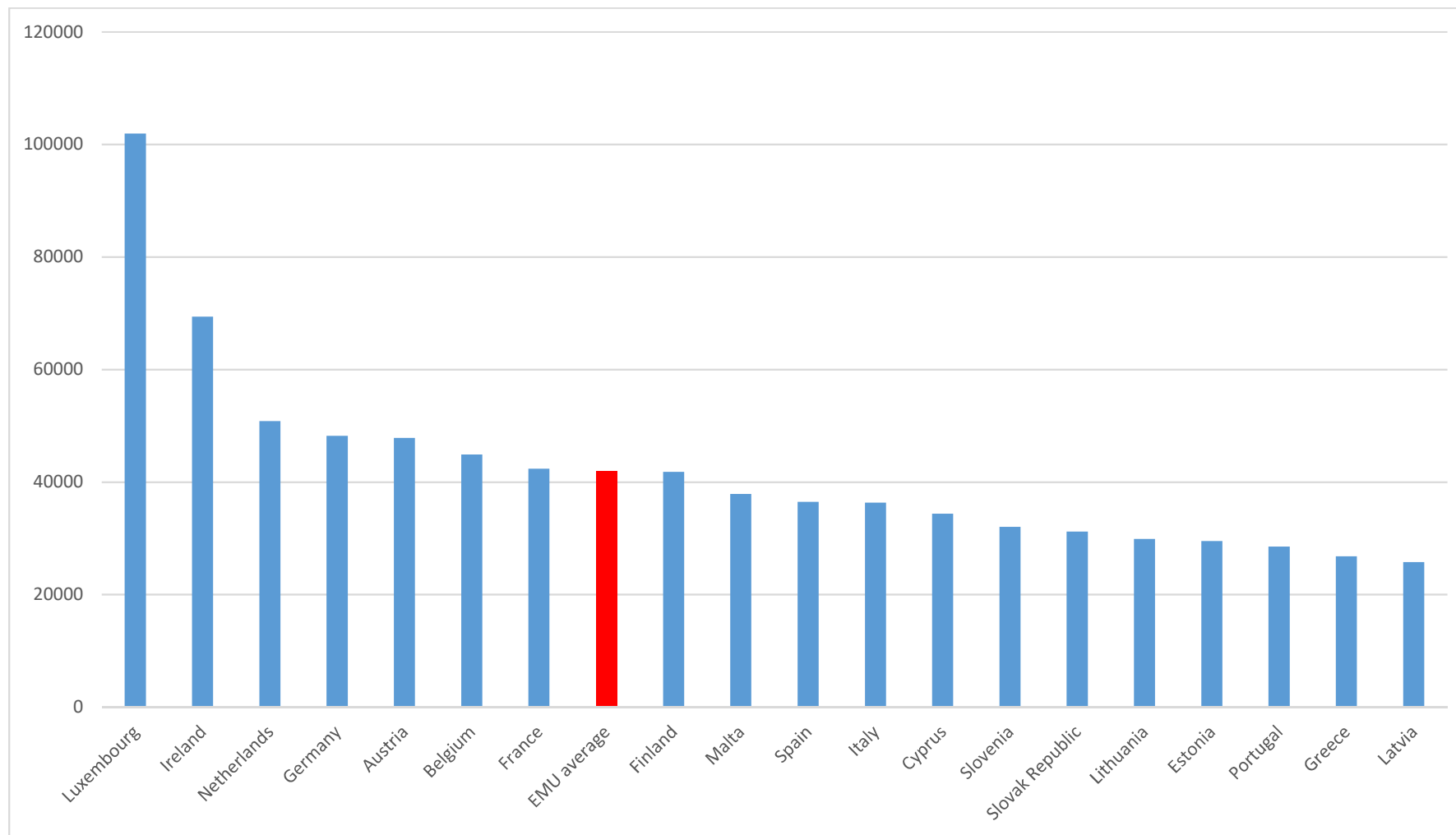
OECD. (2016). *Economic policy reforms. Going for growth, interim report 2016*. Paris.

Oliver, C. (2016). Enthusiasm for EU in sharp decline throughout Europe, not just UK. *Financial Times*, 7 June.

Schuknecht, L. (2016). An insurance scheme that only ensures problems. *Frankfurter Allgemeine*, 8 February.

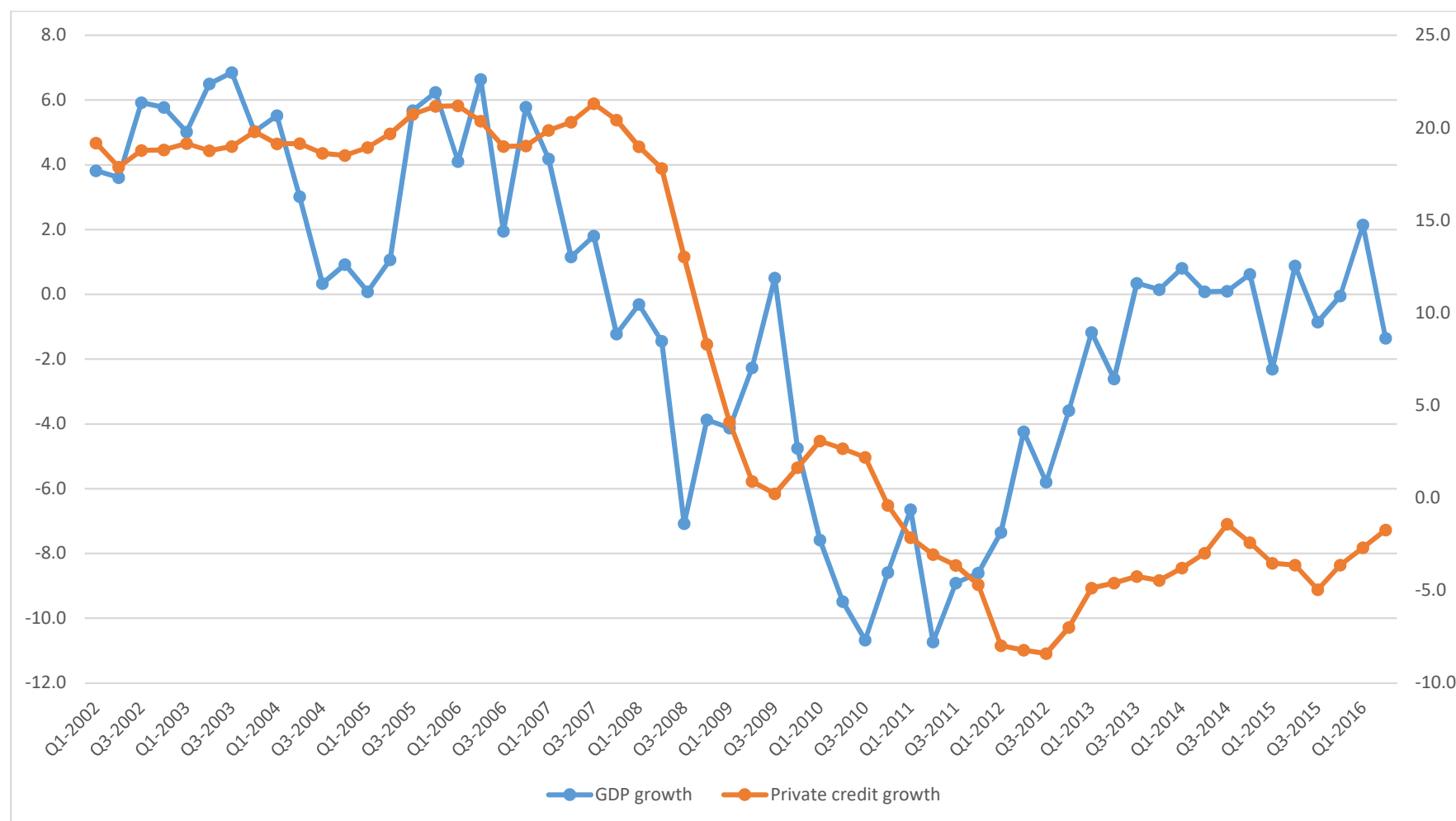
Véron, N. (2016). European Deposit Insurance Scheme: A response to Ludger Schuknecht. *Bruegel.org*, 16 February. <http://bruegel.org/2016/02/european-deposit-insurance-a-response-to-ludger-schuknecht/>. Accessed 25 April 2017.

Figure 1 Gross domestic product based on purchasing-power parity per capita GDP, US dollars in 2015



Source: International Monetary Fund 2016.

Figure 2 Growth rates for real GDP and bank credit to the private sector in Greece



Sources: GDP growth rates: International Monetary Fund 2017. Private bank credit growth: Bank of Greece 2017.

Note: GDP growth rates are measured on the left vertical axis; bank credit growth rates are measured on the right vertical axis.